Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. Original. A method for increasing cell survival in cell therapy treatment, the method comprises the steps of inducing in a cell the expression of at least one cell survival gene, introducing and expressing in said cell a nucleic acid sequence encoding a functional transcription factor selected from the group consisting of EPASI, HIF-I and HIF-3 or a functional analog thereof.

2. Amended. The method of claim 1, wherein the cell survival gene is a cardioprotective gene.

3. Amended. The method of claim 2, wherin said cardioprotective gene is selected from the group consisting of LIF, LIF-R and CT-1.

4. Amended. The method of claim 3, wherein said cardioprotective gene is CT-1.

5. Amended. The method of claim 3, wherein said cardioprotective gene is LIF.

6. Amended. The method of claim 3, wherein said cardiporotective gene is LIF-R.

7. Amended. The method of claim 1, wherein said nucleic acid sequence is a cDNA.

8. Amended. The method of claim 1, wherein the cell is a mammalian cell.

9. Amended. The method of claim 8, wherein the mammalian cell is selected from the group consisting of myoblast, skeletal muscular cell, cardiomyocyte, smooth muscle cell, bone marrow cell, endothelial cell, endothelial progenitor cell, fibroblast and embryonic stem celll.

10. Amended. The method of claim 1, wherein said nucleic acid sequence is introduced into the cell using a method selected from the group consisting of adenoviral infection, and plasmid, cosmid or artificial chromosome transfection and electroporation.

11. Amended. The method of claim 10, wherein said method further comprises the step of transplanting, into the heart of a compatible recipient, a plurality of said cells.

12. Amended. The method of claim 11, wherein said transplantation is autologous.

13. Amended. The method of claim 11, wherein said transplantation improves the mammal's cardiac functions.

14. Amended. The method of claim 1, wherein said method is for the treatment of peripheral vascular disease (PVD).

15. Amended. The method of claim 1, wherein said method is for wound healing.

16. Original. A method for increasing the metabolic activity of a muscular cell, comprising the step of introducing and expressing in said cell a nucleic acid sequence encoding a functional transcription factor of EPASI or a functional analog thereof.

17. Amended. The method of claim 16, wherein said transcription factor induces the expression of at least one cell survival gene selected from the group consisting of LIF, LIF-R, CT-1.

18. Amended. The method of claim 16, wherein said transcription factor induces the expression of a CT-1, a cardioprotective gene.

19. Amended. The method of claim 14, wherein said method is for the treatment of coronary and cardiac disorders.

20. Original. A method for improving cardiac tissue functions of a mammal, comprising the step of providing to the cardiac tissue of said mammal a plurality of genetically modified cells expressing a nucleic acid sequence encoding a functional transcription factor of EPAS1 or a functional analog thereof.

21. Amended. The method of claim 20, wherein said genetically modified cells are provided by injecting directly said nucleotide sequence in the cardiac tissue of said mammal.

22. Amended. The method of claim 20, wherein said genetically modified cells are provided by transplanting into said cardiac tissue a plurality of cells genetically modified for expressing said transcription factor, and wherein said cells originate from a compatible donor.

23. Original. The method of claim 22, wherein said transplantation is autologous.

24. Amended. The method of any one of claims 17 to 23, wherein said transcription factor induces the expression of at least one cell survival gene

selected from the group consisting of, LIF, LIF-R, CT-1.

25. Cancelled.

26. Cancelled.

27. Cancelled.

28. Amended. The method of claim 24, wherein the transcription factor induces the expression of CT-1 and the tissue is a muscular tissue.

29. Amended. The method of claim 24, wherein the transcription factor induces the expression of LIF and the muscular tissue is a cardiac tissue.

30. Original. A genetically modified muscular cell expressing a functional EPAS1 transcription factor or a functional analog thereof.

31. Amended. The cell of claim 27, wherein said cell is a myoblast, a skeletal muscular cell or a cardiac cell.

32. Amended. The cell of claim 27, wherein said transcription factor is inducible.

33. Amended. The cell of claim 27, wherein said transcription factor induces the expression of at least one cell survival gene selected from the group consisting of LIF, LIF-R, CT-1.

34. Amended. The cell of claim 27, wherein said transcription factor induces the expression of CT-1.

35. Amended. The cell of 27, wherein said transcription factor induces the expression of LIF.

36. Amended. The cell of claim 27, wherein said transcription factor induces the expression of LIF-R.

37. Amended. The cell of claim 27, wherein said cell comprises a cDNA encoding said transcription factor.

38. Amended. A modified cell that contains the nucleic acid of claim 1.

39. Amended. The cell of claim 35, wherein said cell is selected from the group consisting of myoblast, mammalian skeletal muscular cells, cardiac cells, bone marrow cells, fibroblasts, smooth muscle cells, endothelial cells, endothelial progenitor cells and embryonic stem cells.

40. Amended. A transgenic animal generated from the cell of claim 35, wherein said nucleic acid is expressed in said transgenic animal.

41. Cancelled.

42. Cancelled.